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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/526,814

Applicant(s)

SUGERMAN, GERALD

Examiner

NICOLE M. BUJE

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 22-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-854)
- Paper No(s)/Mail Date 20060623/20061006

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 06/23/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The abstract and machine translation of JP 08092518 A have been provided, but the foreign patent document has not been provided, therefore the said document has not been considered.

Claim Objections

Claims 22-25 are objected to because of the following informalities: "Bis 1,4-butene-2 diolato zirconium (4)..." is capitalized within the said claims. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 6 and 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "catalytic proportion of organic (hydro)peroxides" in **claims 5 and 6** is a relative term which renders the claim indefinite. The term "catalytic proportion of organic (hydro)peroxides" is not defined by the claim, the specification does not provide a standard for

ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of this Office Action, the “catalytic proportion” will be treated as the presence of organic (hydro)peroxides.

Claim 23 recites the preamble “fountain solution”. There is insufficient antecedent basis for this limitation in the claim. For the purpose of this Office Action, “fountain solution” will be treated as a printing ink or printing ink varnish.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, 13, 14, 20, 21, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US 5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation).

Regarding claim 1, Reiter et al. discloses a lithographic ink composition comprising unsaturated fatty acids (i.e. conjugated linoleic acid) (Example 1, C2/L6-15) and 0 weight % of one or more multifunctional (meth)acrylate ester, vinyl ethers, or combinations thereof (Abstract, C2/L6-15) (as 0 ppm would be a point that reads on less than 10 weight% as required by said claim). Reiter et al. also discloses unsaturated polyester resins having free carboxylic acid groups (C2/L44-52).

However, Reiter et al. does not disclose poly alpha(hydroxy)aliphatic acids. Miyamoto et al. teaches copolymerization of oxyacids, such as 2-hydroxy isobutyric acid, 2-hydroxy 2-methyl butanoic acid in ink compositions ([0010], [0011]). Reiter et al. and Miyamoto et al. are analogous art concerned with the same field of endeavor, namely environmentally-friendly polyester ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use a poly alpha(hydroxyl) aliphatic acid of Miyamoto et al. in a composition of Reiter et al., and the motivation to do so would have been as Miyamoto et al. suggests to use a biodegradable polyester ([0001], [0010]).

Regarding claims 2, 13, and 14, Reiter et al. discloses 1 to 5 weight % of a crosslinking agent, such as zirconium propionate (C2/L44-52, Examples 4-8) (as compared to from 0.4 to 4 weight % as required by said claim).

Regarding claim 6, Reiter et al. discloses a composition further comprising organic (hydro)peroxides (Abstract, C2/L6-15).

Regarding claims 20 and 21, Reiter et al. discloses a composition further comprising an additional ink vehicle (i.e. drying oil alkyds, multi-functional unsaturated polyester) (C2/L6-15).

Regarding claim 27, the multifunctional (meth)acrylate ester is optional.

Regarding claim 29, Reiter et al. discloses a composition further comprising combining water (Abstract, C4/L28-36).

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US 5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation)

as applied to claim 1 above, and further in view of Sacripante et al. (US 5,213,938) as evidenced by Brown et al. Chemistry: The Central Science, seventh ed., 1997, p. 823.

Regarding claims 3 and 4, modified Reiter et al. discloses a composition as shown above in claim 1 above.

However, modified Reiter et al. does not disclose inorganic salts of peracids. Sacripante et al. teaches from about 0.1-10 wt % inorganic perchlorate salts in ink compositions (C9/L33-57). Modified Reiter et al. and Sacripante et al. are analogous art concerned with the same field of endeavor, namely ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to substitute inorganic salts of peracids of Sacripante et al. in a composition of modified Reiter et al., and the motivation to do so would have been as Brown et al. suggests perchlorate salts are the most stable of the oxyanions (P 823).

Claims 7-12, 15, 16, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US 5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) as applied to claims 1 and 13 above.

Regarding claim 7, modified Reiter et al. discloses a composition as shown above in claim 1 above. Reiter et al. further discloses a method of printing comprising using an ink composition (Example 1 and Example 4).

Regarding claims 8 and 9, Reiter et al. discloses a method wherein the printing comprises applying an ink to a press (i.e. lithographic inks for printing) (Abstract, Example 1).

Regarding claim 10, Reiter et al. discloses printing on a sheet feed press (Example 4).

Regarding claim 11, modified Reiter et al. discloses a composition as shown above in claim 1. Reiter et al. further discloses a method of printing comprising using an ink vehicle or varnish comprising an ink composition (Examples 4-8).

Regarding claim 12, Reiter et al. discloses a method wherein an ink vehicle or varnish is mixed with a fountain solution (Examples 4-8).

Regarding claim 15, modified Reiter et al. discloses a composition as shown above in claim 13 above. Reiter et al. discloses a method of printing comprising mixing the printing ink or varnish with a fountain solution (Abstract, Examples 1-8).

Regarding claim 16, Reiter et al. discloses a method wherein the ink vehicle comprises 5-20 weight percent of unsaturated polyester resins, such as poly alpha(hydroxy)aliphatic acids (C2/L44-52) (as compared to 10-35 wt% as required by said claim) and 3.80 wt% of drying oil alkyd (i.e. linseed oil based alkyd resin) (Example 8) (as compared to 2 to 15 weight percent as required by said claim).

Regarding claim 18, Reiter et al. discloses a method wherein a fountain solution further comprises an organic (hydro)peroxide (C2/L6-15).

Regarding claim 19, Reiter et al. discloses a method wherein an ink vehicle comprises alkyds or polyester (C2/L6-15).

Claims 1 and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US 5,552,467) in view of Klitzman et al. (US 6,013,122) *This is an alternative rejection of claim(s) 1 above to meet the limitations of poly alpha (hydroxy)aliphatic acids.*

Regarding claims 1 and 26, Reiter et al. discloses a lithographic ink composition comprising unsaturated fatty acids (i.e. conjugated linoleic acid) (Example 1, C2/L6-15) and 0 weight % of one or more multifunctional (meth)acrylate ester, vinyl ethers, or combinations thereof (Abstract, C2/L6-15) (as 0 ppm would be a point that reads on less than 10 weight% as required by said claim). Reiter et al. also discloses unsaturated polyester resins having free carboxylic acid groups (C2/L44-52).

However, Reiter et al. does not disclose a poly alpha (hydroxyl) aliphatic acid. Klitzman teaches a poly alpha (hydroxy) aliphatic acid comprising hydroxyl acetic acid ("poly(glycolic acid)) in an polyester ink composition (C15/L46-58). Reiter et al. and Klitzman et al. are analogous art concerned with the same field of endeavor, namely environmentally-friendly ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use of a poly alpha (hydroxyl) aliphatic acid in a composition of Reiter et al., and the motivation to do so would have been as Klitzman et al. suggests using a biodegradable polymer (C15/L35-58).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) and Sugerman et al. (US 5,173,113). *This is an alternative rejection of claim(s) 1 above to meet the limitations of multifunctional (meth)acrylate esters, vinyl ethers, or combinations thereof.*

Regarding claim 1, Reiter et al. discloses a lithographic ink composition comprising unsaturated fatty acids (i.e. conjugated linoleic acid) (Example 1, C2/L6-15). Reiter et al. also discloses unsaturated polyester resins having free carboxylic acid groups (C2/L44-52).

However, Reiter et al. does not disclose poly alpha(hydroxy)aliphatic acids. Miyamoto et al. teaches copolymerization of oxyacids, such as 2-hydroxy isobutyric acid, 2-hydroxy 2-methyl butanoic acid in ink compositions ([0010], [0011]). Reiter et al. and Miyamoto et al. are analogous art concerned with the same field of endeavor, namely environmentally-friendly polyester ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use a poly alpha(hydroxyl) aliphatic acid of Miyamoto et al. in a composition of Reiter et al., and the motivation to do so would have been as Miyamoto et al. suggests to use a biodegradable polyester ([0001], [0010]).

However, Reiter et al. does not disclose multifunctional (meth)acrylate esters, vinyl ethers, or combinations thereof. Sugerman et al. teaches about 10% by weight of difunctional or multifunctional acrylate esters (i.e. trimethylolpropane trimethacrylate or methylene propane trimethacrylate) (Abstract, Table B). Reiter et al. and Sugerman et al. are analogous art concerned with the same field of endeavor, namely lithographic ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use multifunctional (meth)acrylate esters of Sugerman et al. in a composition of Reiter et al., and the motivation to do so would have been as Sugerman et al. suggests to have lithographic ink formulations which exhibit exceptional performance (Abstract, C2/L28-35).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) and Sugerman et al. (US 5,173,113) as applied to claim 1 above, and further in view of

Sacripante et al. (US 5,213,938) as evidenced by Brown et al. Chemistry: The Central Science, seventh ed., 1997, p. 823.

Regarding claim 5, modified Reiter et al. discloses a composition as shown above in claim 1 above. Reiter et al. further discloses 5-20 weight percent of unsaturated polyester resins, such as poly alpha(hydroxy)aliphatic acids (C2/L44-52) (as compared to 10-35 wt% as required by said claim), 3.80 wt% of drying oil alkyd (i.e. linseed oil based alkyd resin) (Example 8) (as compared to 2 to 15 weight percent as required by said claim), 1 to 5 weight % of a crosslinking agent, such as zirconium propionate (C2/L44-52, Examples 4-8) (as compared to 0.4 to 4 weight % as required by said claim).

However, modified Reiter et al. does not disclose inorganic salts of peracids. Sacripante et al. teaches from about 0.1-10 wt % inorganic perchlorate salts in ink compositions (C9/L33-57). Modified Reiter et al. and Sacripante et al. are analogous art concerned with the same field of endeavor, namely ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use inorganic salts of peracids of Sacripante et al. in a composition of modified Reiter et al., and the motivation to do so would have been as Brown et al. suggests perchlorate salts are the most stable of the oxyanions (P 823).

Claims 15, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) and Sugerman et al. (US 5,173,113) as applied to claim 1 above. *This is an alternative rejection of claim(s) 15 and 16 above to meet the limitations of multifunctional (meth)acrylate esters, vinyl ethers, or combinations thereof.*

Regarding claim 15, modified Reiter et al. discloses a composition as shown above in claim 1. Reiter et al. discloses a method of printing comprising mixing the printing ink or varnish with a fountain solution (Abstract, Examples 1-8).

Regarding claim 16, Reiter et al. discloses a method wherein the ink vehicle comprises 5-20 weight percent of unsaturated polyester resins, such as poly alpha(hydroxy)aliphatic acids (C2/L44-52) (as compared to 10-35 wt% as required by said claim) and 3.80 wt% of drying oil alkyd (i.e. linseed oil based alkyd resin) (Example 8) (as compared to 2 to 15 weight percent as required by said claim).

Regarding claim 17, modified Reiter et al. discloses about 10 wt % of multifunction (meth)acrylate as shown above in claim 1 (as compared to 1 to 7 wt % as required by said claim).

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reiter et al. (US5,552,467) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) and Sugerman et al. (US 5,173,113) and Sacripante et al. (US 5,213,938) as evidenced by Brown et al. Chemistry: The Central Science, seventh ed., 1997, p. 823.

Regarding claim 1, Reiter et al. discloses a lithographic ink composition comprising unsaturated fatty acids (i.e. conjugated linoleic acid) (Example 1, C2/L6-15). Reiter et al. also discloses unsaturated polyester resins having free carboxylic acid groups (C2/L44-52). Reiter et al. further discloses 5-20 weight percent of unsaturated polyester resins, such as poly alpha(hydroxy)aliphatic acids (C2/L44-52) (as compared to 10-35 wt% as required by said claim), 3.80 wt% of drying oil alkyd (i.e. linseed oil based alkyd resin) (Example 8) (as compared to 2 to 15 weight percent as required by said claim), 1 to 5 weight % of a crosslinking

agent, such as zirconium propionate (C2/L44-52, Examples 4-8) (as compared to 0.4 to 4 weight % as required by said claim).

However, Reiter et al. does not disclose poly alpha(hydroxy)aliphatic acids. Miyamoto et al. teaches copolymerization of oxyacids, such as 2-hydroxy isobutyric acid, 2-hydroxy 2-methyl butanoic acid in ink compositions ([0010], [0011]). Reiter et al. and Miyamoto et al. are analogous art concerned with the same field of endeavor, namely environmentally-friendly polyester ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use a poly alpha(hydroxyl) aliphatic acid of Miyamoto et al. in a composition of Reiter et al., and the motivation to do so would have been as Miyamoto et al. suggests to use a biodegradable polyester ([0001], [0010]).

However, Reiter et al. does not disclose multifunctional (meth)acrylate esters, vinyl ethers, or combinations thereof. Sugerman et al. teaches about 10% by weight of difunctional or multifunctional acrylate esters (i.e. trimethylolpropane trimethacrylate or methylene propane trimethacrylate) (Abstract, Table B). Reiter et al. and Sugerman et al. are analogous art concerned with the same field of endeavor, namely lithographic ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use multifunctional (meth)acrylate esters of Sugerman et al. in a composition of Reiter et al., and the motivation to do so would have been as Sugerman et al. suggests to have lithographic ink formulations which exhibit exceptional performance (Abstract, C2/L28-35).

However, modified Reiter et al. does not disclose inorganic salts of peracids. Sacripante et al. teaches from about 0.1-10 wt % inorganic perchlorate salts in ink compositions (C9/L33-57). Modified Reiter et al. and Sacripante et al. are analogous art concerned with the same field

of endeavor, namely ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use inorganic salts of peracids of Sacripante et al. in a composition of modified Reiter et al., and the motivation to do so would have been as Brown et al. suggests perchlorate salts are the most stable of the oxyanions (P 823).

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jugle et al. (US 3,983,045) in view of Miyamoto et al. (JP 08092518, see machine translation for citation). *This is an alternative rejection of claim(s) 1 above to meet the limitations of organozirconium compound.*

Regarding claim 1, Jugle et al. discloses a composition comprising unsaturated fatty acids and 0 weight % of one or more multifunctional (meth)acrylate ester, vinyl ethers, or combinations thereof (Abstract, C2/L6-15) (as 0 ppm would be a point that reads on less than 10 weight% as required by said claim).

However, Jugle et al. does not disclose poly alpha(hydroxy)aliphatic acids. Miyamoto et al. teaches copolymerization of oxyacids, such as 2-hydroxy isobutyric acid, 2-hydroxy 2-methyl butanoic acid in ink compositions ([0010], [0011]). Reiter et al. and Miyamoto et al. are analogous art concerned with the same field of endeavor, namely environmentally-friendly polyester ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use a poly alpha(hydroxyl) aliphatic acid of Miyamoto et al. in a composition of Reiter et al., and the motivation to do so would have been as Miyamoto et al. suggests to use a biodegradable polyester ([0001], [0010]).

Claims 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jugle et al. (US 3,983,045) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) as applied to claim 1 above, and further in view of Reiter et al. (US5,552,467).

Regarding claim 2, modified Jugle et al. a composition as shown above in claim 1. Jugle et al. further discloses organic zirconium compounds (C7/L13-44).

However, modified Jugle et al. does not disclose amount of organic zirconium compounds. Reiter et al. discloses 1 to 5 weight % of a crosslinking agent, such as zirconium propionate (C2/L44-52, Examples 4-8) (as compared to from 0.4 to 4 weight % as required by said claim. Jugle et al. and Reiter are analogous art concerned with the same field of endeavor, namely polyester ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use amount of organic zirconium compounds of Reiter et al. in a composition of Jugle et al., and the motivation to do so would have been as Reiter et al. suggests to crosslink with free carboxylic acid groups of the resin (C2/L57-C3/L2).

Regarding claim 22, Jugle discloses a zirconium salt of pentadecanoic acid (C7/L37-44).

However, Jugle does not discloses oxo zirconium(4) bis i-pentadecanoate. It would have been obvious to one of ordinary skill in the art at the time of invention to use i-pentadecanoate acid and the motivation to do so would have been to improve the stability and an oxo group to improve chemical resistance. An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound in the expectation that compounds similar in structure will have similar properties. *In re Payne*, 606 F. 2d 303, 313, 203 USPQ 245, 254 (CCPA 979). See *In re Papesch*, 315.2d 381, 137 USPQ 43

(CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). See MPEP 2144.09.

Claims 7 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jugle et al. (US 3,983,045) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) as applied to claim 1 above.

Regarding claim 7, modified Jugle et al. discloses a composition as shown above in claim 1. Jugle et al. further discloses a method of printing comprising using an ink composition (C10/L64-C11/L8).

Regarding claim 24, Jugle discloses a zirconium salt of pentadecanoic acid (C7/L37-44).

However, Jugle does not disclose oxo zirconium(4) bis i-pentadecanoate. It would have been obvious to one of ordinary skill in the art at the time of invention to use i-pentadecanoate acid and the motivation to do so would have been to improve the stability and an oxo group to improve chemical resistance. An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound in the expectation that compounds similar in structure will have similar properties. *In re Payne*, 606 F. 2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See *In re Papesch*, 315.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). See MPEP 2144.09.

Claims 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jugle et al. (US 3,983,045) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) as applied to claim 1 above.

Regarding claim 13, modified Jugle et al. discloses a composition as shown above in claim 1. Jugle et al. further discloses a printing ink comprising an ink composition and organic zirconium compound (C7/L13-44, C10/L64-C11/L8).

Regarding claim 23, Jugle discloses a zirconium salt of pentadecanoic acid (C7/L37-44).

However, Jugle does not disclose oxo zirconium(4) bis i-pentadecanoate. It would have been obvious to one of ordinary skill in the art at the time of invention to use i-pentadecanoic acid and the motivation to do so would have been to improve the stability and an oxo group to improve chemical resistance. An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound in the expectation that compounds similar in structure will have similar properties. *In re Payne*, 606 F. 2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See *In re Papesch*, 315.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). See MPEP 2144.09.

Claims 15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jugle et al. (US 3,983,045) in view of Miyamoto et al. (JP 08092518, see machine translation for citation) as applied to claim 1 above as applied to claim 13 above, and further in view of Reiter et al. (US5,552,467).

Regarding claim 15, modified Jugle et al. discloses a composition as shown above in claim 13. Jugle et al. further discloses a method of printing comprising an printing ink (C10/L64-C11/L8).

However, modified Jugle et al. does not disclose a fountain solution. Reiter et al. teaches a fountain solution in an ink composition (Abstract, C2/L6-15). Modified Jugle et al. and Reiter et al. are analogous art concerned with the same field of endeavor, namely polyester ink compositions. It would have been obvious to one of ordinary skill in the art at the time of invention to use a fountain solution of Reiter et al. in a method of printing of Jugle et al., and the motivation to do so would have been as Reiter et al. suggests when the catalyst in the fountain solution is absorbed into a liquid ink on the imaging surface, a composition is thereby formed that lends itself to redox initiated free radical polymerization and crosslinking of olefinic unsaturation in the ink vehicle upon heating (C3/L6-24).

Regarding claim 25, Jugle discloses a zirconium salt of pentadecanoic acid (C7/L37-44).

However, Jugle does not discloses oxo zirconium(4) bis i-pentadecanoate. It would have been obvious to one of ordinary skill in the art at the time of invention to use i-pentadecanoate acid and the motivation to do so would have been to improve the stability and an oxo group to improve chemical resistance. An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound in the expectation that compounds similar in structure will have similar properties. *In re Payne*, 606 F. 2d 303, 313, 203 USPQ 245, 254 (CCPA 979). See *In re Papesch*, 315.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). See MPEP 2144.09.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-17 and 19-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 and 19-29 of U.S. Patent No. 7157505.

Although the conflicting claims are not identical, they are not patentably distinct from each other because ‘505 recites a composition substantially the same reaction product as the instant claims (claims 1-6, 13, 14, 20-23, and 26-29) and the method of printing as the instant claims (claims 7-12, 15-19, 24, and 25).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./
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1-Oct-08

/N. M. B./
Examiner, Art Unit 1796
9/24/2008